

Message

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**From:** David Albert [David Albert <dalbert@TNC.ORG>]  
**Sent:** 10/25/2012 5:38:56 PM  
**To:** Jason Todd/DC/USEPA/US@EPA  
**CC:** Jeff Frithsen/DC/USEPA/US@EPA; Palmer Hough/DC/USEPA/US@EPA; almer Hough/DC/USEPA/US@EPA  
**Subject:** RE: Stratus / IHS / TNC Hydrologic Model for Review  
**Attachments:** model\_domain.Z; dalbert@TNC.ORG; Todd.Jason@epamail.epa.gov; <mailto:Todd.Jason@epamail.epa.gov>; cwobus@stratusconsulting.com; Frithsen.Jeff@epamail.epa.gov; Hough.Palmer@epamail.epa.gov; dalbert@TNC.ORG; cwobus@stratusconsulting.com; cwobus@stratusconsulting.com; Hough.Palmer@epamail.epa.gov; <mailto:Hough.Palmer@epamail.epa.gov>; cwobus@stratusconsulting.com; Todd.Jason@epamail.epa.gov; Frithsen.Jeff@epamail.epa.gov; [www.epa.gov/wetlands](http://www.epa.gov/wetlands); dalbert@TNC.ORG; cwobus@stratusconsulting.com; cwobus@stratusconsulting.com; <http://conserveonline.org/workspaces/bristolbay>; dalbert@tnc.org; nature.org; image001.gif; image002.png; image003.png; image004.jpg

David Albert

The Nature Conservancy

907-586-2301

From: Todd.Jason@epamail.epa.gov [<mailto:Todd.Jason@epamail.epa.gov>]  
Sent: Thursday, October 25, 2012 5:38 AM  
To: David Albert  
Cc: Frithsen.Jeff@epamail.epa.gov; Hough.Palmer@epamail.epa.gov  
Subject: RE: Stratus / IHS / TNC Hydrologic Model for Review

Hi Dave,

Thanks for these. They came through fine. One other boundary we were hoping to see was the boundary for the MIKE-SHE modelling domain (red outline in Figure 1). I know it's basically the North Fork Koktuli and South Fork Koktuli upstream of SK100A as well as part of the Upper Talarik (Extends a little below UT100B), but I was hoping to show how it compares conceptually to a similar scale level we've developed for the assessment. Please feel free to call if you have any questions. Thanks again.

Jason

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Jason Todd, Ph.D.  
National Center for Environmental Assessment, 8623-P  
Office of Research and Development, U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW, Washington, DC 20460  
(703) 347-0314 (office)

Physical Address (FedEx, UPS, and Overnight Deliveries)  
Two Potomac Yard Building, N-7941  
2733 S. Crystal Drive  
Arlington VA 22202

David Albert ---10/23/2012 02:47:55 PM---Hi Todd, See attached ZIP files for 25 year mine scenario from Wardrop:

From: David Albert <dalbert@TNC.ORG>  
To: Jason Todd/DC/USEPA/US@EPA  
Cc: Jeff Frithsen/DC/USEPA/US@EPA, Palmer Hough/DC/USEPA/US@EPA  
Date: 10/23/2012 02:47 PM  
Subject: RE: Stratus / IHS / TNC Hydrologic Model for Review

Hi Todd,

See attached ZIP files for 25 year mine scenario from Wardrop:

- 1) 25-year waste rock – includes PAG & NAG
- 2) 25-year pit boundary
- 3) 25-year pit contours
- 4) 25-year TSF

For ZIP files, I renamed the extension to .Z

Let me know if you have trouble with the attachments.

Best,  
Dave

David Albert  
The Nature Conservancy  
907-586-2301

From: Todd.Jason@epamail.epa.gov [mailto:Todd.Jason@epamail.epa.gov]  
Sent: Thursday, October 18, 2012 9:21 AM  
To: David Albert  
Cc: Cameron Wobus (cwobus@stratusconsulting.com); Frithsen.Jeff@epamail.epa.gov; Hough.Palmer@epamail.epa.gov  
Subject: RE: Stratus / IHS / TNC Hydrologic Model for Review

David,  
Thanks for this. The EPA server eats zip files, so just manually change the file extension to something else and I'll change it back.  
Thanks.

---

Jason Todd, Ph.D.  
National Center for Environmental Assessment, 8623-P  
Office of Research and Development, U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW, Washington, DC 20460  
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Arlington VA 22202

David Albert ---10/18/2012 01:16:46 PM---No problem. I'll send zipped shapefiles this afternoon. Best,

From: David Albert <dalbert@TNC.ORG>  
To: Palmer Hough/DC/USEPA/US@EPA  
Cc: "Cameron Wobus (cwobus@stratusconsulting.com)" <cwobus@stratusconsulting.com>, Jason Todd/DC/USEPA/US@EPA, Jeff Frithsen/DC/USEPA/US@EPA

Date: 10/18/2012 01:16 PM  
Subject: RE: Stratus / IHS / TNC Hydrologic Model for Review

No problem. I'll send zipped shapefiles this afternoon.

Best,  
Dave

David Albert  
The Nature Conservancy  
907-586-2301

From: Hough.Palmer@epamail.epa.gov [mailto:Hough.Palmer@epamail.epa.gov]  
Sent: Thursday, October 18, 2012 7:52 AM  
To: David Albert  
Cc: Cameron Wobus (cwobus@stratusconsulting.com); Todd.Jason@epamail.epa.gov; Frithsen.Jeff@epamail.epa.gov  
Subject: Re: Stratus / IHS / TNC Hydrologic Model for Review

Dave:

Thank you again for sharing this study with us. I have a follow up question. We would be interested in evaluating the shapefiles of your modelling domain and mine footprint. Could you share these with us? If so, please let Jason Todd, our GIS lead for the project, know the most efficient method for sharing these files. I have cc'ed Jason on this email.

Thanks, Palmer

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Palmer Hough, Environmental Scientist  
tel: 202.566.1374 I fax: 202.566.1375

Wetlands Division  
U.S. EPA Headquarters (MC 4502T)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
[www.epa.gov/wetlands](http://www.epa.gov/wetlands)

David Albert ---10/09/2012 02:18:20 PM---Palmer: We are pleased to have completed this integrated hydrologic model and analysis of potential

From: David Albert <dalbert@TNC.ORG>  
To: Palmer Hough/DC/USEPA/US@EPA  
Cc: "Cameron Wobus (cwobus@stratusconsulting.com)" <cwobus@stratusconsulting.com>  
Date: 10/09/2012 02:18 PM  
Subject: Stratus / IHS / TNC Hydrologic Model for Review

Palmer:

We are pleased to have completed this integrated hydrologic model and analysis of potential flow and water quality alterations associated with large-scale mining of the Pebble deposit, and submit this detailed report on methods, results and supplemental materials (attached) for peer review:

Potential hydrologic and water quality alteration from large-scale mining of the Pebble deposit in Bristol Bay, Alaska: Results from an integrated hydrologic model of a preliminary mine design

This report is available online at: <http://conserveonline.org/workspaces/bristolbay> as part of a compilation of science sponsored by TNC over the past several years to better understand ecological relationships and potential risks to wild salmon systems in Bristol Bay.

We are very interested in the results of your review, and any comments that may result. Over the next few months we will submit this report for publication, and findings of your review will be very helpful in that effort.

Please let me know if you have any questions or trouble with the attachment.

Best,  
Dave Albert

Please consider the environment before printing this email

David Albert  
Spatial Ecologist, Dir. of  
Conservation Science

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[nature.org](http://nature.org)  
Description: [http://nature.org/images/emailsig\\_pixel.gif](http://nature.org/images/emailsig_pixel.gif)  
The Nature Conservancy  
Alaska Field Office  
416 Harris St.  
Suite 301  
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[IMAGE]

[attachment "2012\_10\_08\_HydroModeling\_Paper.pdf" deleted by Palmer Hough/DC/USEPA/US] [attachment "25yr\_waste\_rock.z" deleted by Jason Todd/DC/USEPA/US] [attachment "25yr\_pit.z" deleted by Jason Todd/DC/USEPA/US] [attachment "25yr\_pit\_contours.z" deleted by Jason Todd/DC/USEPA/US] [attachment "25yr\_TSF.z" deleted by Jason Todd/DC/USEPA/US]



model\_domain.Z



image001.gif



image002.png



image003.png



image004.jpg